

# Development of a surveillance case definition for heat-related illness using 911 medical dispatch data

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#### Abstract:

Objectives: The adverse effects of hot weather on public health are of increasing concern. A surveillance system using 911 medical dispatch data for the detection of heat-related illness (HRI) could provide new information on the impact of excessive heat on the population. This paper describes how we identified medical dispatch call codes, called "determinants", that could represent HRI events. Methods:

Approximately 500 medical dispatch determinants were reviewed in focus groups composed of Emergency Medical Services (EMS) paramedics, dispatchers, physicians, and public health epidemiologists. Each group was asked to select those determinants that might adequately represent HRI. Selections were then assessed empirically using correlations with daily mean temperature over the study period (June 1 - August 31, 2005). Results: The focus groups identified 12 determinant groupings and ranked them according to specificity for HRI. Of these, "Heat/cold exposure" was deemed the most specific. The call determinant groupings with the clearest positive associations with daily mean temperature empirically were "Heat/cold exposure" (Spearman's correlation coefficient (SCC) 0.71, p

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### **Resource Description**

#### Communication: M

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

#### Communication Audience: M

audience to whom the resource is directed

Health Professional

#### Early Warning System:

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

## Climate Change and Human Health Literature Portal

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A focus of content Exposure: M weather or climate related pathway by which climate change affects health Temperature Temperature: Extreme Cold, Extreme Heat Geographic Feature: M resource focuses on specific type of geography None or Unspecified Geographic Location: M resource focuses on specific location **United States** Health Impact: M specification of health effect or disease related to climate change exposure Injury, Other Health Impact Other Health Impact: heat related morbidity and mortality Medical Community Engagement: M resource focus on how the medical community discusses or acts to address health impacts of climate change A focus of content Mitigation/Adaptation: **№** mitigation or adaptation strategy is a focus of resource Adaptation Resource Type: M format or standard characteristic of resource Research Article Timescale: M time period studied Time Scale Unspecified resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system